DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-009415 Address: 333 Burma Road **Date Inspected:** 26-Jul-2009

City: Oakland, CA 94607

Project Name: SAS Superstructure **OSM Arrival Time:** 645 **OSM Departure Time:** 1845 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Zhao Chen Sun **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** OBG and TOWER COMPONENT

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance(QA) Inspector, Subhasis Bera was present during the times noted above for observations relative to the work being performed.

In process Inspection

BAY #6&7

This QA Inspector randomly observed ZPMC welding personnel performing fillet welding of weld joint CB-202G-017-144 filler passes at OBG CB assembly. The personnel were observed welding in the 3F position utilizing a FCAW process. Welders is identified as 019006. The welding variables recorded by QC appeared to comply with the WPS- B - T-2133.

This QA Inspector randomly observed ZPMC welding personnel performing fillet welding of weld joint WD1-A305-77M-3-24&25 filler passes at Tower Strut assembly. The personnel were observed welding in the 2F position utilizing a SMAW process. Welders are identified as 066481. The welding variables recorded by QC appeared to comply with the WPS- B - T-2112.

This QA Inspector randomly observed ZPMC welding personnel performing groove welding of weld joint WD1-A305-53M-2-9B filler passes at Tower Strut assembly. The personnel were observed welding in the 2G position utilizing a SMAW process. Welder is identified as 066268&037743. The welding variables recorded by QC appeared to comply with the WPS- B – T-2212-Tc-U5b.

WELDING INSPECTION REPORT

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This QA Inspector randomly observed ZPMC welding personnel performing fillet welding of weld joint SP-3010A-001-57&58 filler passes at OBG SP assembly. The personnel were observed welding in the 2F position utilizing a FCAW process. Welder is identified as 053669. The welding variables recorded by QC appeared to comply with the WPS- B – T-2132-3.

This QA Inspector randomly observed ZPMC welding personnel performing fillet welding of weld joint BK1A-019-028&029 filler passes at OBG Bike Path assembly. The personnel were observed welding in the 2F position utilizing a FCAW process. Welders is identified as 215185. The welding variables recorded by QC appeared to comply with the WPS- B - T-2132-3.

This QA Inspector randomly observed ZPMC welding personnel performing fillet welding of weld joint BK1A-019-020&021 filler passes at OBG Bike Path assembly. The personnel were observed welding in the 2F position utilizing a FCAW process. Welders is identified as 217291. The welding variables recorded by QC appeared to comply with the WPS- B - T-2132-3.

During random in-process visual inspection in Bay # 06, Caltrans Quality Assurance (QA) Inspector observed ZPMC personnel (048659) welding being performed for weld repair prior to achieving the required pre-heat temperature. This occurred on Tower DiaphragmNSD-131M (material A709SL-Gr-485,thickness 75mm), weld joint NSD1-DP-SA4-2B/B-15(2G)&27(3G). The measured temperature was 60C; the required preheat temperature according to approved WPS is Min.160C.

WPS are WPS-485-SMAW-2G(2F)-REPAIR and WPS-485-SMAW-3G(3F)-REPAIR.

For more details refer today's incident report.

Ultrasonic Testing (UT)

This QA Inspector performed Ultrasonic testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality control personnel. This QA inspector generated a (UT) report for this date. The members are identified as Floor Beam CJP weld.

The Weld Designations are as follow

Bay #3

SSD16A-PP098-131

SSD11A-PP105-132

FB020-009-126,127

FB011-030-043

FB003-184-034&046

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FB003-204-022

Visual Inspection For Green Tagging

This QA inspector performed Visual Inspection for OBG Floor Beam which Were previously accepted by ZPMC Quality Control personnel and ABF QA personnel.

The members are identified as

Floor Beam No. Green Tagging No.

FB-024-009	009710
FB-011-039	009717
FB-009-038	009718
FB-009-037	009714
FB-010-036	009715
FB-028-011	009713
FB-011-038	009716

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Bera, Subhasis	Quality Assurance Inspector
Reviewed By:	Patterson, Rodney	QA Reviewer